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ABSTRACT

Individuals differ in the level of skill with which they can identify their feelings and the feelings of others, manage these feelings, and use the information provided by their feelings to motivate adaptive behavior in themselves. Identifying the skill of a serious and violent juvenile offender (SVJ) to manage his emotional state is important for intervention and rehabilitation, especially when the offender uses crime as a strategy in coping with a negative emotional state. This study designed a paper and pencil instrument to assess the ability of an SVJ to manage emotions in various social contexts. Reliability and validity measures were constructed to determine the extent to which responses to scale statements provided evidence that the instrument assessed the emotion management construct. An initial pool of 50 items was generated from researchers' observations, interactions, and interviews with male juveniles who had been involved with the juvenile justice system. The initial pool was administered to 28 male middle school students who had been grouped by teachers into a group with high positive feelings about self and school and a history of positive behaviors and negative feelings about self and school with a history of negative behaviors. The instrument was revised on the basis of these responses and administered to 41 students from the negative feelings/actions group. After factor analysis and revision, the instrument was administered to six male juvenile offenders at a residential facility. The instrument was correlated with a measure of balanced emotional empathy, and discriminant validity was also studied. Findings suggest that the developed scale, the Juvenile Emotion Management Scale, is capable of assessing an SVJ offender's skill in responding to emotional arousal. (SLD)

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THE JUVENILE EMOTION MANAGEMENT SCALE (JEMS): AN INSTRUMENT DESIGNED TO ASSESS EMOTION SELF-MANAGEMENT SKILLS IN SERIOUS AND VIOLENT JUVENILE OFFENDERS

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Abstract

Individuals differ in the level of skills with which they can identify their feelings and the feelings of others, manage these feelings, and use the information provided by their feelings to motivate adaptive behavior in themselves (Salovey, Goleman, Turvey, & Palfai, 1993). Many juvenile offenders grow up with below average interpersonal skills for dealing with others in a socially appropriate manner, which puts them at risk for social functioning (Todis, Bullis, Waintrup, Schultz, & D' Ambrosio, 2001). There is perhaps no group as misunderstood as juveniles who exhibit extreme antisocial behaviors and whom are often incarcerated for those actions.

Identifying a serious and violent juvenile offender's (SVJ) skill to manage his emotional state is important for intervention and rehabilitation, especially when an offender uses crime as a strategy in coping with his negative emotional state (e.g., "I was angry at those boys for taking my dog. The more I thought about it, the angrier I became, until finally I just picked up a brick and hit one of them in the head.").

The purpose of this study was to design a pencil and paper instrument that would specifically assess a SVJ offender's ability to manage emotions in various social contexts. Reliability and validity measures were constructed to determine the extent to which responses to scale statements provided evidence that the instrument assessed the emotion management construct.

Introduction

Many juvenile offenders grow up with below interpersonal skills for dealing with others in a socially appropriate manner, which seriously puts them at risk for social functioning (Todis, Bullis, Waintrup, Schultz, & D'Ambrosio, 2001). These adolescents tend to display maladaptive behaviors (e.g., aggressive or self-destructive behavior, problems with peer relations, impulsiveness, etc.) that seriously impair their abilities to work, live, and function successfully in society. Emotion and the role it plays in criminal behaviors raises the possibility of juveniles committing crimes as a way to cope with negative emotional states (frustration, depression, and anger).

Thompson (1994) reported that in everyday circumstances, emotion management skills are most often enlisted to dampen emotional arousal (especially negative emotions). In managing one's emotions, individuals try to maintain a positive mood and avoid negative moods by seeking information that helps maintain a positive view of self (Goleman, 1995). Individuals differ in the level of skills with which they can identify their feelings and the feelings of others, manage these feelings, and use the information provided by their feelings to motivate adaptive behavior in themselves (Salovey, Goleman, Turvey, & Palfai, 1993).

Individuals who have developed these emotion management skills, understand and express their own emotions, recognize emotions in others, and manage emotions to achieve adaptive behavior (Salovey et. al., 1993). Identifying a serious and violent juvenile offender's (SVJ) skill to manage his emotional

state is important for intervention and rehabilitation, especially when an offender uses crime as a strategy in coping with his negative emotional state (e.g., "I was angry at those boys for taking my dog. The more I thought about it, the angrier I became, until finally I just picked up a brick and hit one of them in the head.").

If a SVJ offender is limited in his ability to manage his emotional state, then his skill to repair his intense emotional state preceding the crime puts him at risk to offend. Proponents of the concept of emotional intelligence have argued that IQ measures fail to account for most of the variance in individual differences in life success. Alternative measures dealing with various aspects of an individual's emotional functioning may be more relevant for understanding why some persons are successful in life and others are not (Mehrabian, 1997). If success in relationships is the key issue, the author argued, then appropriate personality scales are needed to help make better predictions of life success than can be achieved with IQ measures alone.

Methods and Procedures

LeBlanc (1998) argued that well-designed and validated procedures are needed to assess and classify youth to maximize the impact of interventions. Nowhere is there a more critical need to improve risk assessment and classification practices than in the juvenile system. The purpose of this research was to respond to that critical need by designing the twenty-five-item paper and pencil Juvenile Emotion Management Scale (JEMS). The assessment of SVJ offenders' ability to manage emotion could be instrumental in designing interventions for those offenders who need emotion training to

either reduce socially inappropriate emotion or to induce socially appropriate emotion management skills in themselves.

Instrument Design

An initial pool of 50 items was generated to represent the emotion management construct, as defined by Cole, Mitchel, and Teti (1994):

1. The degree to which individuals manage feelings concerning what is or isn't appropriate.
2. The degree to which individuals acknowledge an inappropriate feeling and repair the feeling.
3. The degree to which individuals act helpfully to others as a way of terminating negative moods.
4. The degree to which individuals alter one's emotional response to provocative situations.

The pool of 50 items was created from researcher's observations, interactions, and interviews with male juveniles from 1993 to 2000 who had been involved with the juvenile justice system. Their lack of emotion management skill was typified by an inability to manage anger appropriately; an inability to calm down when angry; and an inability to bounce back emotionally when things don't go their way,

First-Step: Item Selection

The pool of 50 items were administered (school #1) to male middle school students (n=28) from a rural middle school located in Northeast Arkansas, ages 12-14, who were

nominated by teachers and counselors to one of two groups according to the following criteria.

1. **High Group** (n=18) – positive feelings about self and schools; no suspensions and expulsions; able to express anger appropriately; sensitive to others' feelings; shares, cooperative, and helpful; and friendly and involve with peers; or
2. **Low Group** (n=10)– negative feelings about self and school; history of suspensions and expulsions; problems controlling anger; aggressive or self-destructive behavior; problems in peer relations; impulsive; and not sensitive to others' feelings.

The above criteria were modified from "Emotional Intelligence," (Goleman, 1995. pp. 283-284).

Response opportunities for the 28 students, was a Likert type six-point scale. For favorable statements, the "strongly agree" response was given a weight of 6; the "agree response" a weight of 5; the "slightly agree" response a weight of 4; the "slightly disagree" response a weight of 3; the "disagree" response a weight of 2; and the "strongly disagree" response a weight of 1.

Second-Step: Item Validity

An item-total statistic was performed to establish item validity. The analysis resulted in a poor alpha value (a = .57). To increase alpha to an acceptable level, items in the instrument that had an alpha value less than .10, were either reworded or eliminated. Fourteen of the original items were reworded (e.g., "People can't make me angry" was

changed to, "It takes a lot to make me angry"); twenty-eight items remain unchanged; eight were eliminated; and eight new items were added, resulting in a revised fifty item instrument.

Internal Consistency

To further develop the internal consistency of the revised set of 50 items, a second administration of the instrument was administered to a second group of students from two rural middle schools, school #2 (n=14), and school #3 (n=27), located in Northeast Arkansas. Alpha yielded a questionable value (a = .63). Items that reduced the internal consistency (a >.15) were eliminated. A second analysis was performed and it was determined that keeping twenty-five items with an alpha value greater than .80 improved reliability to .86. A reliability of (.86) suggests the instrument will produce similar results when administered repeatedly to the same person under the same condition.

Internal Reliability

The research instrument's internal reliability was assessed using split-half reliability analysis. The analysis was based on the 41 cases from school #2 and school #3 responses to the twenty-five items selected for the instrument. The items were split into two equal parts (part 1 =13 items and part 2 = 12 items). Cronbachs' alpha for each half demonstrated an acceptable level of reliability within the two halves as depicted as follow.

Table 1

Reliability Analysis Split-Half

Reliability Coefficients			
Correlation between forms = .84		Unequal-length Spearman-Brown	= .93
13 Items in part 1		12 Items in part 2	
Alpha for part 1	= .75	Alpha for part 2	= .74

N = 41 Cases 25 Items.

Empirical Validity With Known Group Comparisons

Male students, 12 to 14 years of age (n=41) from the second cadre of students (school #2 and school #3) were nominated by teachers and counselors to either The High Group (n = 11) or the Low Group (n = 11) (see page 6). An independent *t*-test was used to determine if the JEMS scores of the High Group differed significantly from the Low Group with respect to emotion management skill. Using the independent-samples *t*-test procedure, the following hypothesis was tested.

H_1 There should be a significant difference between the mean score of the High Group and Low Group of male middle school students ages 12 to 14 with respect to emotion management ability.

The results of the *t*-test demonstrated that the JEMS mean scores of the High Group and the mean scores of the Low Group were significantly different: t(22) = t3.12, $p = .005$.

- High Group (n=11) - mean = 129.7; standard deviation = 11.7; standard error of mean = 3.53.

- Low Group (n =11) – mean =108.3; standard deviation = 19.4; standard error of mean = 5.85.

Third-Step: Principal Component Analysis (PCA)

Principal Component Analysis (PCA) was used to select from the twenty-five items of the JEMS, the smallest number of factors that together accounted for all of the total variance of the emotion management construct in the correlation matrix. PCA extracted six components from the twenty-five items of the JEMS that together accounted for 65% of the underlying emotion management construct.

Table 2

Results of the Principal Component Analysis to Identify a Set of Variables that Explains the Total Amount of Variance

Principal Components	Eigenvalue	% of Variance	Cumulative %
1	5.843	24.345	24
2	2.403	10.012	34
3	2.319	9.660	44
4	1.968	8.198	52
5	1.892	7.026	59
6	1.461	5.762	65

Fourth-Step: Validity

To demonstrate that the research instrument does in fact measure the theoretical construct of emotion management, construct validity, criterion-related validity, convergent validity and discriminant validity would have to be established. For this validation process, the instrument was administered to a target population of serious and violent juvenile male offenders (SVJ) ages 12 to 14, the target age range for which this instrument was designed.

Target Population

The twenty-five item research instrument was administered to six male SVJ offenders housed at a Northeastern Arkansas juvenile corrections facility. Although the facility housed 24 inmates, only six were in the target age range of 12 to 14 years old. The facility was located in the Arkansas delta and houses high-risk males for an average stay of 12 months.

Criterion Validity – The Caretaker Rating Scale for Juvenile Offenders (CRS-JO)

In order to establish criterion-related validity of the JEMS, the Caretaker Rating Scale for Juvenile Offenders (CRS-JO) was designed. Offenders' case history files, which where to be used as the criterion for this study, were inaccessible. Therefore, the CRS-JO was designed to create a criterion from which behaviors displayed by SVJ offenders could be rated. This would determine if SVJ offenders' level of emotion management ability (their JEMS score) correlated with the behavior displayed by the SVJ offender (CRS-JO score).

The CRS-JO contained fifteen items divided into 5 categories that could potentially describe behaviors exhibited by SVJ offenders lacking in competent social functioning:

Category 1 Offender gets upset if he doesn't get his way (e.g., uses verbal or physical threats doesn't go his way).

Category 2 Offender has trouble controlling his anger (e.g., needs assistance or intervention to help control anger).

Category 3 Offender reacts negatively to verbal threats (e.g., counters back by vindicating revenge).

Category 4 Offender manipulates others (e.g., teases or pushes around).

Category 5 Offender exhibits signs of depression (e.g., lack of activity, does nothing but sit and watch others).

Inter-rater observations (caretakers in juvenile facility: team leader, teacher, or counselor) were used to help validate the instrument's consistency in rating offender behaviors. Two team leaders and two teachers rated offenders observed behaviors since being admitted to the facility. Both the JEMS and the CRS-JO were administered in the classroom at the same time. SVJ offenders took the JEMS while the caretakers rated past observable behaviors exhibited by offenders since being admitted. This study hypothesized that:

H_2 A SVJ offender who has a high score on the JEMS will have a high score on the CRS-JO.

A Bivariate correlation between the JEMS scores and the CRS-JO demonstrated the JEMS to have criterion-related validity.

Table 3

Bivariate Correlation Between the JEMS Scores and the CRS-JO

		CRS Scores	JEMS Scores
CRS Scores	Pearson Correlation	1.000	.95**
	Sig. (2-tailed)	.	.01
	N	6	6
JEMS Scores	Pearson Correlation	.95**	1.000
	Sig. (2-tailed)	.01	.
	N	6	6

Note: Correlation is significant at the 0.01 level (2-tailed)

Convergent Validity

The JEMS was correlated with the Balanced Emotional Empathy Scale (BEES). Convergent validity was demonstrated to the extent to which the JEMS (emotion management construct) correlated with the BEES, a positive measure of pro-social orientation that deals with major facets of emotional intelligence that are particularly relevant to success in interpersonal relationships.

H_3 From the description of emotional intelligence, there should be a moderate correlation between the JEMS and the BEES.

A Bivariate correlation was run an the resultant Pearson's correlation of .75 indicated that there was a moderate correlation between the JEMS and the BEES. Thus, convergent validity was established indicating that the emotion management construct of the JEMS moderately correlated with another measure in similar construct, the BEES.

Discriminant Validity

Discriminant validity would be established in this study if the JEMS demonstrated that it did not correlate with the Demos D (Dropout) Scale.

H_4 The JEMS should have a low correlation with the Demos D (Dropout) Scale, which measures student attitudes.

A Pearson Bivariate correlation demonstrated that the JEMS had a very low correlation with the Demos D ($r = -.18$), an indication that the JEMS did not have much in common with another measure (Demos D) designed to assess a dissimilar construct (school attitude concerning risk for dropping out of school).

Discussion

The context of juveniles committing crimes as a way to cope with negative emotional states (frustration, depression, and anger) is an important paradigm to consider when addressing juvenile offending. The events that precede a crime can be an intense emotional state in which the offender has to use emotion management skills to control his emotions. Emotion and the role it plays in criminal behaviors raises the possibility that emotion management can be used to restructure thinking (correct behavior through emotion management skills) thereby reducing criminal behaviors. If the offender is limited in emotion management skills, then his ability to repair his negative emotional state is inadequate, leaving the offender at-risk to appropriately manage the intensity of his emotional state.

The JEMS is capable of assessing an SVJ offender's skill in responding to emotional arousal. This is very important when one considers the intense emotional state an offender may be experiencing preceding a crime. Identifying a SVJ offender's skill in managing his emotional states is important for intervention and rehabilitation, especially when an offender uses crime as a strategy for coping with his negative emotional state. JEMS appears to have the psychometric potential to measure emotion management skills in the target population. The skill of the instrument to identify SVJ offenders who have high emotion management skill or low emotion management skill shows promise.

A larger sample of the target population would validate whether the JEMS scores of the six SVJ offenders (94 to 121) are a true representation of someone who may have low emotion management ability. Only six male SVJ offenders out of a population of

twenty-six, met the age criteria (12 to 14 years of age) for this study. JEMS recognized that all six SVJ offenders scored below midpoint (70-75) on the instrument's scale (25-150). It appears that the response from all six offenders on scale five and six of the instrument were unanimous in demonstrating a limited amount of emotion management skills on these two scales: the degree to which individuals recognize emotions in self and others; and the degree to which individuals respond to emotional arousal. Although subscale five and scale six were not part of the original planning for this research, it appears that the items in both scales, have promise in identifying limitations in SVJ offenders emotion management skills and should be further investigated.

Conclusion

Creating the twenty-five item paper-and-pencil measure of the emotion management construct was lengthy and a difficult process. Because the emotion management construct is latent and not directly observable, issues of validity and reliability were paramount. The JEMS has demonstrated to be a valid and reliable instrument that measures a SVJ offender's skill in managing his emotions. The twenty-five items in the instrument all "hang together" in measuring the emotion management construct: internal reliability $a = .86$; and inter-item correlations $r = .40$ to .59. The JEMS has demonstrated its ability to measure emotion management.

High Group and Low Group Emotion Management Skills

Further research, building from this model, must investigate the differences between students' JEMS scores who are nominated to a High and a Low Group according to a behavior criteria. The importance of furthering this aspect of the study is to validate the emotion management scoring range of the instrument (high, medium, low) in defining one's emotion management ability level.

An Emotion Management Manual for Intervention

A manual should be developed, using emotion management techniques and strategies, as an intervention and training curriculum for SVJ offenders. Emotion management as a treatment approach would allow the offender to learn and utilize his skill to interpret and react appropriately to emotional information and stimuli on the spot.

Emotion Management as a Global Assessment Tool

Emotion management abilities should be assessed across gender, social economics status, age, and ethnicity to find out how individuals, across all segments of society, engage their ability to manage emotion when emotionally aroused. These and other personal and situational contexts may provide further insights into the emotion management capacity of juveniles.

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